

## Going against a Tsunami: How Can Agricultural Research for Development (AR4D) Support Innovation for Sustainable Technologies?

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### Abstract

Why do tested, beneficial, and sustainable technologies die out even before they have the chance to spread widely? Adoption of many sustainable technologies can be problematic and constrained. A case in point is integrated pest management (IPM), a proven technology that has been around for decades; yet, the tsunami of pesticides continue, and farmers rely on this rather than IPM. Using the lens of innovation systems and technological lock-in, I examined the trajectory of IPM in Cambodia through secondary materials, survey of farmers (N=500), and interviews of pest management stakeholders. What constrains the spread of IPM is not only a gap in knowledge of farmers or the limitations of extension. Rather, interrelated technological choices, stakeholder interactions, and incentives around the practices of varied stakeholders encourage pesticide reliance over IPM. Moreover, there are overarching processes, such as in policies and the industry of IPM technology, that do not provide the enabling conditions required for IPM to take root. At the intervention side, I reflect upon the case of an agricultural research for development (AR4D) project to look at the ways in which it is addressing this lock-in and supporting the innovation for IPM. Socio-technical reconfiguration is necessary to create both push and pull mechanisms that will propel sustainable practices in agriculture. This has implications on how AR4D should move beyond knowledge and technology into addressing systemic conditions.